



ole

Virginia

Times

The OVH ABC Newsletter



"OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.
Post Office Box 1255, Manassas, VA 22110

Repeater -- WA4FPM -- 146.97/224.66
OVH Nodes -- 145.03/223.54
BBS -- BBSHRG

APRIL 1993 ISSUE

From the President's Shack

I wish to express my sincerest thanks and appreciation to all of you for reposing your trust and confidence in yours truly by electing me as the new President of OVH. As always, a well deserved "THANK YOU" is in order for our outgoing Officers -- John (N4YOB) and Jeff (KB4IWD) -- under whose direction the Club enjoyed another successful year in amateur radio. I also wish to extend a warm welcome to our new Officers -- Ron (NV3S) and Mike (WV3H) -- on whose wisdom and leadership I shall rely a lot for advice and counsel.

One hallmark of an extraordinarily successful club is the degree of autonomy that its various committees operate under without undue interference from whoever is anointed as its stewards. I refer to the fact that the various OVH Committees are running under their own steam towards another successful year. The Newsletter is ell on its way to another award-winning season under Bonnie's guidance. The Hamfest Committee is running like clockwork, thanks to Dan's leadership. Harry's weekly

OVH Net continues to draw hordes of listeners, including yours truly (though Harry says he could use more able-bodied volunteers for his emergency and public service events). Tim's Technical Committee has kept the Club's voice repeater operating despite daunting technical challenges arising from premature equipment failure and vagaries of Mother Nature. I understand the Education Committee will soon commence license classes in early april under Randy's direction. We are literally and figuratively in the news again, thanks to Alan's efforts in publishing our members' exploits in the Foundation for Amateur Radio's (FAR) "Auto-Call" Magazine. A special mention goes to Mike's vigilance and dedication in keeping the OVH Packet Node up 24 hours a day. The Node, with able support from Bill's BBSHRG Board, has gone a long way in fostering closer ties among ourselves and with our brethren from surrounding communities and has given the Club a high degree of visibility. There is nothing more refreshing than waking up one morning and seeing a copy of the Club's Meeting Minutes electronically pop up on your computer screen, thanks to our new

Secretary, Ron's, Packet Mail Forwarding efforts. To those of you who are not yet on Packet, this could be the catalyst that you need to get up and join the Packet revolution.

Space limitations do not allow me to mention all those who in one way or another have kept the Club vibrant and alive. For details on the above activities, please download Ron's (NV3S) Minute of the last meeting from the BBSHRG Bulletin Board, or read Bonnie's condensed version in this Newsletter.

73's and Hasta La Vista.

Butch (N6NSM)

Minutes of the March Meeting

The OVH March 1993 Meeting was called to Order at 8:00 p.m. There were 30 Members and 6 guests present.

Joe (AB4QV) Program Chairman, introduced the evening's speaker, Sr. Patrolman Jim Hamilton, who gave the Club a talk on the "Fleet Watch" Program. Patrol Hamilton gave a short explanation on what the Program is about and how persons could help report any criminal or suspicious activity to the police. He provided Club Members with bumper stickers, visor decals and report forms. A short question and answer period followed the conclusion of his presentation.

Tim (KB4NR) - Technical Committee - reported that the Committee has been working on the controller. The controller went down a week ago and the problem appeared to be with the computer interface. Once the interface was reprogrammed, the controller came up. There are still several minor problems to

take care of, but Tim wanted the machine available before the big storm (Blizzard of '93) hit.

The Packet Committee reported that the Node was operating fine and there were no problems at this time.

Harry (W4PVA) announced that there would be a Skywarn Drill and several simulated diaster drills within the next few weeks. Harry said that anyone wanting to help should contact Bob (N4SCK) as soon as possible.

Program Chairman, Joe (AB4QV), reported that he may have an 18 minute SAREX video at the next (April) Club Meeting.

Newsletter Editor, Bonnie (N4QPB), reported the Newsletter was getting many good articles from the Membership and that they should keep up the good work.

The Hamfest Chairman, Dan (KC4EWT), was unable to attend the meeting, but Ivan (KD4DFD) reminded the Hamfest Committee Members of an upcoming meeting.

New members voted in were Mike (N3NVF), Duffy (KD6RNE), Paul (W4ZB).

The Meeting was Adjourned at 9:40 p.m.

Ron (NV3S)
Secretary



HARRY'S CORNER

AERIALS is a book by one known as Kurt N. Sterba and Lil Paddle. With a forward by one Walt Maxwell (W2DU). This 93 page book is a collection of articles published in WORLDRADIO that target many claims of what is called false information heard on the air and some manufacturer claims. I note that a good deal of it has to do with the lower frequency amateur bands. Especially with the use of vertical antennas for DX operation. This is a book that will aid in the selection of an antenna but it does not attempt to describe all types of antennas or their dimensions. It does point out a number of fallacies that are bandied about in some information heard and published.

In reading and rereading this book, I do not find any incorrect points. Only the true state of events. Several points are made:

1. With vertical antennas, the ground plane is of prime importance.
2. Insulated wire works just fine for antennas and ground planes.
3. The vertical antenna is a good DX antenna.
4. An antenna tuner helps reduce TVI by being a selective filter.
5. An apartment dweller living in a high location can find a "hot mike" and by use of a quarter wave counterpoise wire cure it. (Possibly TVI too!)
6. The WINDOM antenna require a good ground.
7. The electrical length of a piece of coax is NOT the same as its physical length. (I comment here that this is true of any insulation spaced transmission line.)
8. SWR is caused by antenna to transmission line mismatch and nothing can be done at the station to change it.
9. A transmatch CAN match the rig to the mismatched feeder/antenna combination and thus allow the rig to "see" a matched load.
10. A fine wire can be used in some locations to put up an "invisible" antenna-but you acquire the problem that it may be broken by a passing bird running into it.
11. Transmission line losses are called attenuation and will reduce the apparent VSWR as viewed from the transmitter. (I add that this is especially apparent at VHF frequencies.)

This is from the first 1/3 of the book. It contains so much that I cannot cover the whole thing in this space. If time permits, a further comment on the book will be forth coming in a later issue of the Newsletter.

73

Harry (W4PVA)

NOTE: Copy sent to Lil Paddle and Kurt Sterba for comment prior to publishing in the OVH Newsletter.

P.S. This book is written in a light vein and I found it to be enjoyable reading.

ARTICLES FROM THE MEMBERS

Packet Bursts

KI4RO @ N4WJN.#NOVA.va.USA.NOAM

Remember this? That's right, last month I promised to talk a little bit about the "gibberish" after my callsign.

This, technically, is my complete packet network address. Packet addressing is said to be hierarchical, meaning that each portion of the address builds on the part that came before it.

In the case of my address it indicates that I am on the continent of North America (NOAM) in the country of the United States of America (USA) in the state of Virginia (VA) specifically in the Northern part of Virginia (#NOVA) on a packet BBS with the call of N4WJN. And yes, I know I read the address from right to left! If you stop to think about it though, it only makes sense to identify the correct continent, then the correct country, etc. The #NOVA has not been "officially" adopted, but a lot of large intrastate networks find it easier to divide their states up into zones for ease of routing. Notice that there are four letters for the continent, three letters for the country and two letters for the state. This 4 x 3 2 scheme has pretty well been adopted in the packet community as the correct way to address packets. So, you say, what has this got to do with packets finding their way to me?

Well, let's assume that G8BPQ in London, England wants to send me some information on the latest release of his node software. He checks into his local board and enters a message to me, KI4RO, in the usual manner. His local board, like all boards, has a specific time of the day that it gathers together all its outbound packets and begins forwarding them on to their destinations. Contrary to popular belief, this is not done with smoke and mirrors! Each SYSOP (pronounced SIS OP - short for System Operator) has manually built up a set of routing tables that provides the BBS software with specific instructions on how to route messages. Let's say that the board in England has a 17 meter port to WA3TAI in Accokeek, Maryland. By examining my full address from right to left the board software determines that I am in NOAM. The SYSOP of the London BBS has instructed his software to route all NOAM packets to WA3TAI. WA3TAI receives the packet and the software there again begins the examination process by looking at my address from right to left; NOAM is this continent, USA is this country, VA is not the state where WA3TAI is located, but another one. Off we go to the routing table that WA3TAI has built at his board. That table says to route VA packets to N4WJN. Once again the software at N4WJN begins examining the address from right to left and discovers that this board IS the one that is to receive the message. N4WJN's software now looks to see if KI4RO is a user that can be forwarded directly. Lo and behold, KI4RO leaves his TNC "parked" on 223.54 MHz most of the time and N4WJN will now route the message to him automatically by connecting to OVH and then to KI4RO via port 2.

This was a relatively simple example and did not take into account any route or path failures. These situations would also have to be taken into account and the SYSOPs would have to provide alternate routing tables for times of bad propagation or equipment failure, but hopefully it provided you with a little insight into the true heart of the packet network, hierarchical addressing.

If you want to have some fun with this, next time you check into BBSHRG and find a message that interest you instead of typing R <message number> try RH <message number>. RH means Read Header. See if you can figure out the route the message took to get to our BBS.

One final note, in order to ensure the smooth flow of packets through the network it is imperative that you provide as much of this hierarchical address as you can when generating messages to other stations. By practicing good hierarchical addressing you will avoid the phenomenon of your packet being "lost" in the network. If the BBS software can't figure out what to do with your packet because of poor addressing, it will hang around on that board until the SYSOP catches it and figures out where you really meant to send it! If you read a message on our BBS and then enter SR for Send Reply our software will automatically provide the correct hierarchical address for you in the reply packet. If you just want to send a message to another ham, you might try using the I command on the board to see if it knows the correct hierarchical address of the other ham. Just enter I KI4RO for example, and you should see the correct address for my station. So, until next month. . .speaking of next month, what should we discuss next? I'm open to comments and/or suggestions.

73 and happy connecting

KI4RO @ N4WJN.#NOVA.VA.NOAM

Note from the Editor:

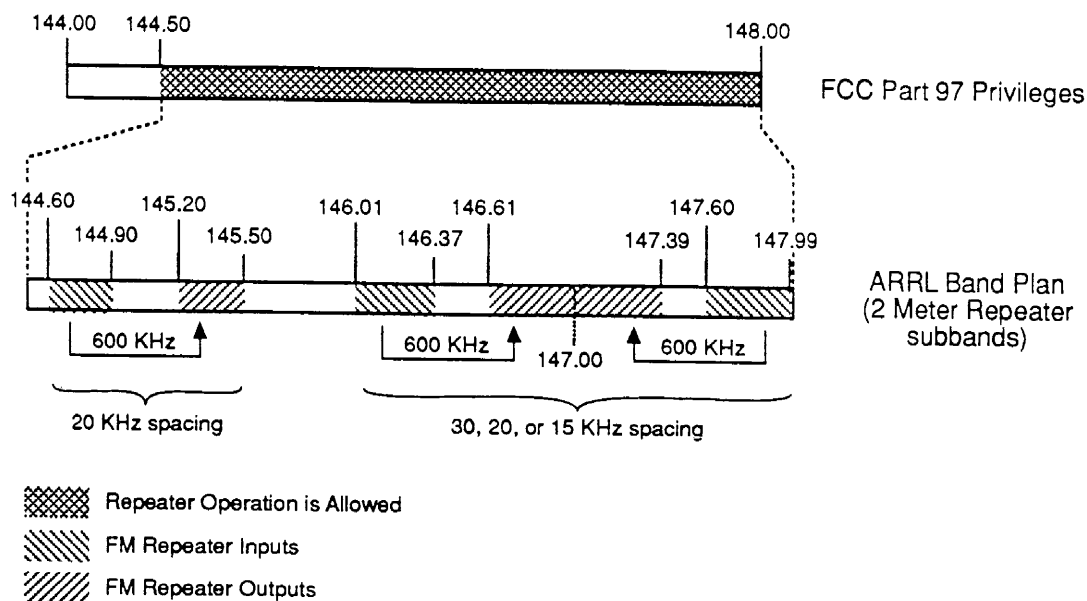
Did you know that distant members of the Club can contact you through the BBS and vice versa? John (KI4RO) recently received a message from Steve (VK8SD -- WA1VQN), a Club Member, located for the moment in Alice Springs, Australia. He was responding to John's last article in the Newsletter.

Small world, huh?

Rag-[w]-ing: What's a Repeater Band Plan?

[We interrupt our normal CW lobbying for something completely different. What is a repeater band plan? If there is a plan, why do repeater inputs and outputs seem inconsistent?

The following was adapted from a message that appeared on the AMRAD BBS in response to someone asking what a band plan is. It appears here (with some editing) with the gracious permission of the author, Dick Barth (W3HWN). Dick's response is so good that it's worth, er, repeating. Any errors, however, are KC4EWT's.]



A "band plan" is simply an agreement among radio amateurs to use certain frequencies, and not others, for various communication modes and facilities. Although band plans do not have the force of FCC regulation, the FCC has, in resolving disputes, favored stations that conform to band plans.

The types of radios hams use on the VHF and UHF bands are typically FM with a nominal radiated bandwidth of 20 KHz. A band plan avoids interference between repeaters and with other uses of the band (SSB, CW, packet, etc.).

To prevent interference between repeater channels, it was agreed to space them 30 KHz apart. This left room for a little sloppiness in adjusting them (they might be a bit wider than 20 KHz) and in tuning them (they might not be exactly on the frequency they were supposed to use). In the early days, the band available for repeaters (we're talking 2 meters here) was 146-148 MHz, and in this band had to fit both the repeater outputs and the repeater inputs. To simplify repeater design, all the

repeater output frequencies were bunched together: you'll notice that repeater outputs are spread out in both directions from 147.00 MHz.

A repeater needs a certain amount of separation between its input and output frequencies, because early repeaters used a single site and, in fact, a single antenna. The transmitter hardware thus had to isolate a weak incoming signal from a very strong outgoing signal in a single feedline.

For the filters to provide adequate isolation, some frequency separation was needed, and 600 KHz seemed like a good number. So, we have repeater outputs on 147.00, 146.97 (30 KHz away) 146.94, 146.91, etc. and, going up, 147.03, 147.06, etc. The repeater input is 600 KHz away, lower by 600 in the 146 region and higher by 600 in the 147 region. Hence, 146.37/97: 146.37 in, 146.97 out; and 147.81/21: 147.81 in, 147.21 out.

There is, of course, a range of frequencies where no repeaters fit, because you can't go 600 KHz down (or up) without violating the band limits. The

Rag-[w]-ing: What's a Repeater Band Plan? (continued)

lowest allowable frequency in this part of the plan is 146.01/61, and the highest is 147.99/39.

What about the middle frequency, 147.00? That's a local option. In the Washington, D.C. area it's used with the input low: the DX club repeater is 146.40 in, 147.00 out. Elsewhere in the country it's used with a 147.60 input.

The frequencies between the lowest repeater output (in the 146 region) and the highest repeater input are used for simplex (146.52 is one of those) and similarly in the mid-147 region.

There are always oddballs. Some of the earliest repeaters were built before the band plan was created and are still in existence. They operate on non-standard frequencies and with things like a 1 MHz split instead of 600 KHz.

As time went on, people decided they wanted more repeaters. The so-called

"splinter" frequencies were added to the band plan, halfway between the old frequencies, so now we have repeaters separated by 15 KHz in the 146-148 region. (In some states, this repeater subband is being realigned with 20 MHz separation: transitions occur on a case-by-case basis.) A new repeater subband was created down in 144-145 with a 20 KHz separation.

In other bands, things are altogether different, but the band plans (which vary by area) are still around. In 440 Mhz, for example, large areas of the country use repeater input high and others use input low. Fortunately, the planners don't get docked brownie points for inconsistency!

For more information on band plans, consult *The ARRL Repeater Directory* or the "Amateur Radio Spectrum" chapter of *The ARRL Operating Manual*.

73 DE K4EWI (EB INX WJHWN)

MANASSAS HAMFEST

AMATEUR RADIO AND COMPUTER SHOW
AN ARRL APPROVED HAMFEST

SUNDAY, JUNE 6, 1993



PRESENTED BY THE OLE VIRGINIA HAMS A.R.C., INC

** FREE PARKING ** TALK-IN ON 146.37/97 & 223.06/224.66 ** HOURLY PRIZES **

INDOOR EXHIBIT SPACE AVAILABLE FOR DEALERS AND MANUFACTURERS
*** FOOD PROVIDED BY THE PARK WEST LIONS CLUB ***

GENERAL ADMISSION:

\$5.00 Per-person at gate

No advance sale

Gates open at 8.00 A.M.

TAILGATING:

\$5.00 Per-space in addition to
general admission

Gates open at 7.00 A.M.

PRINCE WILLIAM COUNTY FAIRGROUNDS 1/2 MILES SOUTH OF
MANASSAS ON ROUTE 264

Hamfest Information

The Manassas Hamfest and Computer Show is less than 2 months away. Once again the Ole Virginia Hams will have a Club Tailgate table for Members to leave items for sale while they work or shop at the Hamfest. This table area will be under the tent next to the OVH Announcing table and prize drum. It will be staffed by OVH members from 6:00 a.m. until 3:00 p.m. If you plan on leaving articles at the table, please make sure they are clearly marked with your name, call and asking price and include a list showing the LOWEST price you will take for each item. This will eliminate the need to call you to the table each time a buyer wants to make an offer on your equipment. Please limit items to those relating to ham radio or computers only.

All unsold items MUST be picked up from the Tailgate Table Staff no later than 3:15 p.m. Any items left after 3:15 p.m. will be considered abandoned and treated as such, unless prior arrangements have been made. If you want to help out at the OVH Tailgate Table, please contact Jeff (KB4IWD).

73

Jeff (KB4IWD)

Swap N Shop

Wanted: MFM Hard disk controller w/floppy drive controller for a Seagate drive Model #ST-251 -- A Seagate ST-22M is the recommended card.

I would also be interested in a terminating resistor for a Seagate ST-251.

Contact: Jim (WD4OJY) at 369-

3940 - evenings or on Packet - either direct or via N4WJN.

From the Editor

The Ole Virginia Times deadline for articles to be contained in an issue is the 25th of the previous month.

Articles can be typed or handwritten. They can be sent via the mail to the address listed below, or sent to the Club Post Office Box or by packet. If you have questions, please contact me at 703-361-0008 or 703-257-0897 (home) or 703-536-1384 (work).

Bonnie Frick
246 Kent Drive
Manassas Park, VA 22111

The Deadline For Articles to Appear in the May 1993 Issue is the 25th of April.

THE NEXT MEETING

The next meeting of the Ole Virginia Hams Amateur Radio Club will be on Monday Evening, April 19, 1993, at 8:00 p.m., in the basement Meeting Room of the Northern Virginia Co-Op, 10323 Lomond Drive, Manassas, Virginia.

WE LOOK FORWARD TO SEEING YOU!

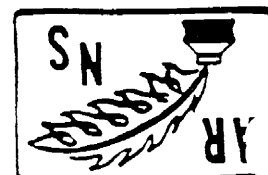


OLE VIRGINIA HAMS EVENTS

April 17 - May 28, 1993



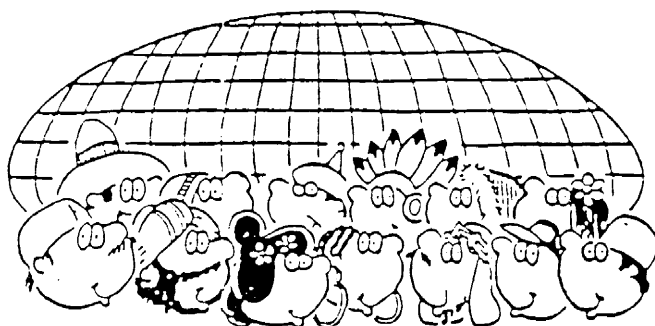
SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Apr 17 9:00pm ARES Net 146.91 VEC Laurel VEC Cumberland	Apr 18	Apr 19 8:00pm OVH Meeting	Apr 20 7:30pm Novice/ Tech Training	Apr 21 8:00pm NVFMA Net 146.79/224.10	Apr 22 8:00pm OVH Net 146.97/224.66 VEC Towson	Apr 23 Dayton Hamfest
Apr 24 9:00pm ARES Net 146.91 Dayton Hamfest	Apr 25	Apr 26 VEC Hagerstown	Apr 27 7:30pm Novice/ Tech Training VEC Annapolis	Apr 28 8:00pm NVFMA Net 146.79/224.10	Apr 29 8:00pm OVH Net 146.97/224.66	Apr 30
May 1 9:00pm ARES Net 146.91 Kent Island Hamfest VEC Hampton VEC Fredricksburg	May 2	May 3	May 4 7:30pm Novice/ Tech Training	May 5 8:00pm NVFMA Net 146.79/224.10	May 6 8:00pm OVH Net 146.97/224.66	May 7
May 8 9:00pm ARES Net 146.91	May 9	May 10	May 11 7:30pm Novice/ Tech Training	May 12 8:00pm NVFMA Net 146.79/224.10	May 13 8:00pm OVH Net 146.97/224.66	May 14
May 15 9:00pm ARES Net 146.91	May 16 MS 150K Bikathon	May 17 8:00pm OVH Meeting	May 18 7:30pm Novice/ Tech Training	May 19 8:00pm NVFMA Net 146.79/224.10	May 20 8:00pm OVH Net 146.97/224.66	May 21
May 22 9:00pm ARES Net 146.91 ALA 150 Mile Bike Trek	May 23	May 24	May 25 7:30pm Novice/ Tech Training	May 26 8:00pm NVFMA Net 146.79/224.10	May 27 8:00pm OVH Net 146.97/224.66	May 28



FIRST CLASS MAIL



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WORLD WIDE FRIENDSHIP THROUGH AMATEUR RADIO



MANASSAS HAMFEST
SUNDAY, JUNE 6, 1993